

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-38 are pending in the application, with claims 1 and 19 being the independent claims. Claims 1-14, 16, 19-32 and 34 are sought to be amended. These amendments have been made to more accurately define the invention, not necessarily to overcome the art of record (unless noted below). Claims 37 and 38 have been added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 1-5, 8, 9, 19-23, 26, and 27 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,289,372 issued to Guthrie *et al.* (hereinafter "Guthrie").

Claim 1, as amended, recites "selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items. . . ." Support for the amendment can be found in Figure 11 and the accompanying text. Guthrie does not disclose this feature. Instead, Guthrie discloses sensors electrically connected to a collector by way of a conventional 6-conductor telephone cable using connectors. (Guthrie, col. 7, lines 59-61). Collectors are described as being located in a room and every sensor in the room connects to this collector. (Guthrie, col. 8, lines 6-8). Consequently, the cable connectors provide

a physical connection between the collector and the sensors. In contrast, the claimed invention relates to a method for conducting a wireless inventory of a plurality of items. Guthrie actually teaches away from a wireless communication at column 3, lines 40-44. Therefore, Applicants respectfully request that the rejection of this claim be reconsidered and withdrawn.

Claims 2-5 and 8-9 depend from amended claim 1 and include the features recited therein. For at least this reason, Applicants believe that these claims are patentable over Guthrie. Therefore, Applicants request that the rejection of these claims also be reconsidered and withdrawn.

Claim 19, as amended, recites "means for selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items. . . ." As set forth above with respect to amended claim 1, Guthrie does not disclose wireless communication between a remote access sensor module and a plurality of tags. Again, Guthrie actually teaches away from wireless communication at column 3, lines 40-44. Therefore, Applicants request that the rejection of this claim be reconsidered and withdrawn.

Claims 20-23 and 26-27 depend from amended claim 19 and include the features recited therein. For at least this reason, these claims are believed patentable over Guthrie. Therefore, Applicants respectfully request that the rejection of these claims also be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

Claims 6, 7, 10-14, 16, 17, 24, 25, 28-32, 34, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie (cited above).

Claims 6, 7, 10-14, 16, 17, 24, 25, 28-32, 34 and 35 depend, respectively, from amended claims 1 and 19 and include the features recited therein. As set forth above, Guthrie does not disclose selecting one of a plurality of remote access sensor modules physically separate from the items. For at least this reason, these claims are believed patentable over Guthrie.

With further regard to claims 6, 7, 24, and 25, these claims relate to security actions that are initiated when a Tag ID is missing. The Examiner asserts that these responses would have been obvious to a person skilled in the relevant art at the time the invention was made. To support this assertion, the Examiner relies upon Guthrie's alleged disclosure of a maintenance person being dispatched to the nonresponsive tag. (Office Action, page 4, paragraph 5, citing Guthrie at col. 13, lines 56-68). Applicants respectfully disagree with the Examiner's assertion and reading of Guthrie. The relied upon portion of Guthrie discloses that when any "concentrator fails" to respond to a call, maintenance personnel are dispatched to check out the questionable concentrator. Applicants wish to point out that a failed concentrator and a missing Tag Id are not the same situation. Thus, Guthrie fails to teach or render obvious the security actions that are initiated when a Tag ID is missing, as set forth in the presently claimed invention. Therefore, Applicants respectfully request that the rejection of these claims be reconsidered and withdrawn.

With further regard to claims 16 and 34, these claims recite, among other things, transmitting a manufacturer number assigned to said each tag that responded to said one of said at least one first clock signal that corresponds to said given first reader count when the manufacturer number of said each tag corresponds to said second count. Guthrie does not disclose or render obvious these features. Further, as is well established, the Examiner bears the burden of establishing *prima facie* obviousness of the claimed invention. Accordingly all the claim features must be shown to be taught or suggested. More specifically, all the words in the claim must be considered. Applicants believe that with respect to claims 16 and 34, among others, the Examiner has failed to establish *prima facie* obviousness of the claimed invention. Thus, Applicants respectfully traverse the Examiner's blanket assertion that the interrogation steps as set forth in claims 16 and 34 would have been obvious and request that the rejection of these claims be reconsidered and withdrawn.

Claims 15, 18, 33, and 36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Guthrie (cited above) in view of U.S. Patent No. 3,689,885 issued to Kaplan *et al.* (hereinafter "Kaplan").

Claims 15, 18, 33, and 36 depend, respectively, from amended claims 1 and 19 and include the features recited therein. For at least this reason, these claims are believed patentable over Guthrie in view of Kaplan. Therefore, Applicants respectfully request that the rejection of these claims be reconsidered and withdrawn.

Conclusion

All of the stated grounds rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all

presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Version with markings to show changes made

1. (Amended) A method of conducting a wireless [an] inventory of items using [by] a network tag reader and tags, wherein a unique tag is attached to each item and each tag is permanently assigned a tag identification number (Tag ID), the method comprising the steps of:

selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items, wherein the selected remote access sensor module comprises a coverage pattern that defines a physical area containing a plurality of items with their associated tags;

interrogating the [one or more] tags in a defined physical area through the corresponding selected remote access sensor module, [wherein the one or more tags are within the physical area defined by the coverage pattern,] thereby receiving information [regarding the one or more] from the tags in the defined physical area;

storing the information received in [said] the interrogating step in [a plurality of] an inventory [records] database;

repeating [said] the selecting, interrogating, and storing steps for each remote access sensor module; and

after [said] the selecting, interrogating, and storing steps are performed for each remote access sensor module, processing the information in the [plurality of] inventory [records] database.

2. (Amended) The method of claim 1, wherein the information received in [said] the interrogating step comprises [one or more Tag IDs] at least one TagID , each Tag ID corresponding to [the one or more tags] a tag within the physical area defined by the coverage pattern.
3. (Amended) The method of claim 2, further comprising the step of repeating [said] the selecting, interrogating, storing, repeating, and processing steps.
4. (Amended) The method of claim 3, wherein [said] the storing step comprises the step of:

if a particular Tag ID received during an initial performance of [said] the interrogating step has not been received during a subsequent performance of [said] the interrogating step within a predetermined time period, storing information in [one of the plurality of] the inventory [records] database that indicates a tag corresponding to the particular Tag ID is missing.
5. (Amended) The method of claim 4, wherein [said] the processing step comprises the step of initiating a security action when [a] the particular Tag ID is missing.
6. (Amended) The method of claim 5, wherein [said] the security action comprises turning on a surveillance camera.

7. (Amended) The method of claim 5, wherein [said] the security action comprises activating a silent alarm.
8. (Amended) The method of claim 2, wherein [said] the processing step comprises the step of correlating a remote access sensor module identity with each [of the one or more Tag IDs] Tag ID received in [said] the interrogating step to maintain data regarding the location of each tag corresponding to [the] a Tag ID [one or more Tag IDs].
9. (Amended) The method of claim 1, wherein the information received in [said] the interrogating step comprises sensor information originated by a sensor [in] associated with a tag within the physical area defined by the coverage pattern.
10. (Amended) The method of claim 9, wherein [said] the sensor information indicates tag movement and/or vibration.
11. (Amended) The method of claim 9, wherein [said] the sensor information indicates ambient tag temperature.
12. (Amended) The method of claim 9, wherein [said] the processing step comprises the step of analyzing [said] the sensor information for a condition that indicates a security breach.

13. (Amended) The method of claim 12, wherein [said] the condition that indicates a security breach comprises a temperature fluctuation.

14. (Amended) The method of claim 12, wherein [said] the condition that indicates a security breach comprises a sudden vibration.

16. (Amended) The method of claim 1, wherein [said] the interrogating step comprises the steps of:

at the network tag reader,

transmitting through the selected remote access sensor module a wake-up signal followed by [at least one] a first clock signal;

at each tag within the physical area defined by the coverage pattern of the selected remote access sensor module,

incrementing a first tag count in response to [said at least one] the first clock signal,

and

transmitting the Tag ID assigned to [said] each tag when the Tag ID of [said] each tag corresponds to [said] the first tag count;

at the network tag reader,

incrementing a first reader count in response to [said at least one] the first clock signal,

storing a given first reader count when more than one tag responds to [one of said at least one] the first clock signal that corresponds to [said] the given first reader count, and

transmitting through the selected remote access sensor module [said] the given first reader count followed by [at least one] a second clock signal; and
at each tag that [responded to said one of said at least one first clock signal that corresponds to said] responds to the transmitted given first reader count,
incrementing a second tag count in response to [said at least one] the second clock signal, and
transmitting a [manufacture] second number assigned to [said] each tag [that responded to said one of said at least one first clock signal that corresponds to said given first reader count] when the [manufacturer] second number of [said] each tag corresponds to [said] the second count.

19. (Amended) A system for conducting a wireless [an] inventory of items [by] using a network tag reader and tags, wherein a unique tag is attached to each item and each tag is permanently assigned a tag identification number (Tag ID) [and a manufacturer number], the method comprising the steps of:

means for selecting one of a plurality of remote access sensor modules, which communicate wirelessly with the items, wherein the selected remote access sensor module comprises a coverage pattern that defines a physical area containing a plurality of items with their associated tags;

means for interrogating the [one or more] tags in a defined physical area through the corresponding selected remote access sensor module, [wherein the one or more tags are within the physical area defined by the coverage pattern,] thereby receiving information [regarding the one or more] from the tags in the defined physical area;

means for storing the information received by [said] the interrogating means in [a plurality of] inventory [records] database;

means for repeating [said] the selecting, interrogating, and storing means for each remote access sensor module; and

means for processing the information in the [plurality of] inventory [records] database.

20. (Amended) The system of claim 19, wherein the information received by [said] the interrogating means comprises at least one Tag ID [one or more Tag IDs], each Tag ID corresponding to [the one or more tags] a tag within the physical area defined by the coverage pattern.

21. (Amended) The system of claim 20, further comprising means for repeatedly invoking [said] the selecting, interrogating, storing, repeating, and processing means.

22. (Amended) The system of claim 21, wherein [said] the storing means comprises:
if a Tag ID received during an initial performance of [said] the interrogating means has not been received during a subsequent performance of [said] the interrogating means within a predetermined time period, means for storing information in [one of the plurality of] the inventory [records] database that indicates a tag corresponding to the Tag ID is missing.

23. (Amended) The system of claim 22, wherein [said] the processing means comprises means for initiating a security action when a Tag ID is missing.
24. (Amended) The system of claim 23, wherein [said] the means for initiating a security action comprises means for turning on a surveillance camera.
25. (Amended) The system of claim 23, wherein [said] the means for initiating a security action comprises means for activating a silent alarm.
26. (Amended) The system of claim 20, wherein [said] the processing means comprises means for correlating a remote access sensor module identity with each Tag ID [of the one or more Tag IDs] received by [said] the interrogating means to maintain data regarding the location of each tag corresponding to a Tag ID [the one or more Tag IDs].
27. (Amended) The system of claim 19, wherein the information received by [said] the interrogating means comprises sensor information originated by a sensor [in] associated with a tag within the physical area defined by the coverage pattern.
28. (Amended) The system of claim 27, wherein [said] the sensor information indicates tag movement and/or vibration.
29. (Amended) The system of claim 27, wherein [said] the sensor information indicates ambient tag temperature.

30. (Amended) The system of claim 27, wherein [said] the processing means comprises means for analyzing [said] the sensor information for a condition that indicates a security breach.

31. (Amended) The system of claim 30, wherein [said] the condition that indicates a security breach comprises a temperature fluctuation.

32. (Amended) The system of claim 30, wherein [said] the condition that indicates a security breach comprises a sudden vibration.

34. (Amended) The system of claim 19, wherein [said] the means for interrogating [step] comprises:

at the network tag reader,

means for transmitting through the selected remote access sensor module a wake-up signal followed by [at least one] a first clock signal;

at each tag within the physical area defined by the coverage pattern of the selected remote access sensor module,

means for incrementing a first tag count in response to [said at least one] the first clock signal, and

means for transmitting the Tag ID assigned to [said] each tag when the Tag ID of [said] each tag corresponds to [said] the first tag count;

at the network tag reader,

means for incrementing a first reader count in response to [said at least one] the first clock signal,

means for storing a given first reader count when more than one tag responds to [one of said at least one] the first clock signal that corresponds to [said] the given first reader count, and

means for transmitting through the selected remote access sensor module [said] the given first reader count followed by [at least one] a second clock signal; and

at each tag that responds to [said one of said at least one first clock signal that corresponds to said] the transmitted given first reader count,

means for incrementing a second tag count in response to [said at least one] the second clock signal, and

means for transmitting [the manufacturer number] a second number assigned to [said] each tag [that responded to said one of said at least one first clock signal that corresponds to said given first reader count] when the [manufacturer] second number of [said] each tag corresponds to [said] the second count.

The following claims have been added:

37. (New) The method of claim 1, further including the step of performing multiple reads of the tags by the network tag reader to avoid time slot contention, wherein the tag identification number includes a plurality of bits, wherein the tag reader uses a

first plurality of the plurality of bits during a first read and a second plurality of the plurality of bits during a second read.

38. (New) The system of claim 19, wherein the network tag reader performs multiple reads of the tags to avoid time slot contention, wherein the tag identification number includes a plurality of bits, wherein the tag reader uses a first plurality of the plurality of bits during a first read and a second plurality of the plurality of bits during a second read.